

Corrective Action Plan

A. Scope and Objectives of the Corrective Action Plan

The scope of this Corrective Action Plan (CAP) is to provide a description of the actions BNFL Inc. (BNFL) will take to correct the deficiencies noted in the referenced correspondence. The original Finding, reported by the RU Inspection Team as IR-99-007-01-FIN, is summarized: "...the Contractor had not established a process that would ensure that the authorization basis was maintained current with respect to the facility design."

The objectives of this CAP are to list and provide the schedule for those activities that have been or will be taken to: (1) align the authorization basis with facility design, (2) implement an effective authorization basis maintenance process, and (3) verify the effectiveness of the revised authorization basis maintenance program.

B. Elements and Level-of-Detail

The various CAP activities are discussed below. Attachment 2 shows a Primavera schedule (as of the date on the schedule) showing the activities and their interrelationships. Activity dates on the Primavera schedule that end with an "A" are actual dates. All other dates are planned.

(1) Significant CAP Milestones

Full compliance with Authorization Basis (AB) program requirements will be achieved when the design and the AB are in alignment, the revised AB maintenance program has been implemented, and necessary training has been completed. A QA surveillance of the revised AB maintenance program will be completed to ensure the new program is effective. Finally, longer-term corrective actions, associated with related programmatic quality improvement activities, will be completed by August 2000.

The following CAP milestones were presented to the RU in Reference 2 and were deemed "acceptable" in Reference 1.

Completed activities and corrective actions for Finding IR-99-007-01-FIN:

- Design documents reviewed for AB consistency based on Design Input Memorandum (DIM) content of AB design criteria, or AB screening forms,
- Design Basis Events (DBEs) identified from ISM Cycle II and compared against list of significant and bounding hazards in the AB,
- Authorization Basis Amendment Request (ABAR) for "Deviation from the AB" submitted, and
- Procedure changes identified for revised AB maintenance program

Activities to be completed:

By April 24, 2000:

- Necessary Authorization Basis Change Notices (ABCNs) and Safety Evaluations (SEs) approved,
- AB revisions issued for all changes not requiring RU approval,
- ABARs issued for all AB changes requiring RU approval,
- Engineering and AB procedures issued to reflect new AB maintenance program¹
- Training completed for all affected project personnel¹, and
- Deficiency Reports issued for open ABARs in accordance with “deviate from the AB” to ensure appropriate tracking and closure¹

¹ Actual issuance of procedures and completion of training on the new AB program will necessarily follow the approval of the ABAR for “Deviation from the AB” and revision and issuance of the revised sections of the ISMP incorporating the approved ABAR. Complete implementation is estimated to be ten (10) working days after receipt, by BNFL, of the approved ABAR.

By June 30, 2000:

- QA surveillance of revised AB program complete and effectiveness of the revised AB maintenance program determined

By August 1, 2000

- Full closure of root cause corrective actions is scheduled to coincide with the completion of applicable actions in the Project Quality Improvement Action Plan.

(2) Information and Specific Corrective Actions – Bringing the Authorization Basis Current

The following types of documents, which are included in the April deliverable, constitute the facility design. The Authorization Basis will be consistent with this design (except where ABARs have been issued).

Process Flow Diagrams
Mechanical Flow Diagrams
Mechanical Handling Diagrams
Piping and Instrumentation Diagrams
Ventilation and Instrumentation Diagrams
Electrical Single Line Diagrams
Plot Plans
Layouts/General Arrangement Drawings

Attachment 3 to this letter is a listing of the design documents, under configuration control, that will be considered consistent with the AB on April 24, 2000. This design will be maintained consistent with the AB.

The following specific activities have or will be taken to bring the documents listed in Attachment 3 consistent and current with the AB.

Activity	Planned Completion date
Distribute available ISM Cycle I and II input	Complete
Preliminary validation of standards based on available ISM information	Complete
Review of standards with ISM Leads against safety criteria/Cycle II results	Complete
Sort and review preliminary DBEs, select performance requirements	Complete
Comparison of April design to fundamental aspects of design	Complete
Comparison of April design to significant and bounding hazards	Complete
Complete and confirm DIMs	Complete
Develop ABCNs/ABARs	Apr 17
Project Safety Committee (PSC) approval of ABCNs/ABARs	Apr 19
Issue AB changes or submit ABARs	Apr 24

(3) Information and Specific Corrective Actions – Implementing an Effective Authorization Basis Maintenance Process

The following procedures are expected to be modified to achieve implementation of the new AB maintenance program.

K13C003	Code of Practice for the Production of Process-Based Procedures
K13C023	Code of Practice for the Internal Review and Approval of Documents
K13P054	Corrective Action
K13P056	Identification of Nonconforming Conditions
K70P528	Managing Changes to Control the Authorization Basis
K70P551	Drawings and Sketches: Preparation, Checking, and Approval
K70P557	Design Inputs

An Authorization Basis Maintenance training program is being prepared and will be delivered (by April 24, 2000) to affected design engineers, safety engineers, and quality assurance personnel. The general content of the training lesson plan is shown below.

1. Introduction and Purpose
2. Training Objectives
3. Authorization Basis Maintenance Program
 - Definition of the Authorization Basis
 - Definition of Change
 - Change Process
 - List of affected documents
 - ABCN
 - Reduction in Commitment and Effectiveness
4. Design Input Memorandum (DIM) and Design Criteria Database (DCD)
 - Purpose and design
 - Instructions for use of the DCD and preparation of the DIM

- Review and approval process
- 5. Deviation from the Authorization Basis
 - RL/REG-97-13/Contract Change
 - Deviation from the AB Process
 - Decision to Deviate (DTD)
 - Deficiency reports
 - Deviation closure

The following specific activities have or will be taken to implement an effective AB maintenance process. Revisions to procedures and training required to implement the option to deviate from the AB will be prepared in parallel with the processing and approval, by the RU, of the ABAR allowing deviations from the AB. Following the approval of the ABAR and the issuance of the ISMP change to reflect the new option, the procedures and training will be implemented across the project.

Activity	Planned Completion date
First draft prepared of all procedures requiring modification	Completed
Complete the draft AB Maintenance training lesson plan	Completed
Approve the training lesson plan	Completed
Receive all comments on revised procedures	Apr 18
Conduct series of AB training classes	Apr 17-21
Complete incorporation of comments on revised procedures	Apr 20
Issue AB changes (ISMP) on deviation from the AB	Apr 24
Approve and issue all revised procedures	Apr 24

Note: The above schedule for issuance of revised procedures assumes RU approval of the ABAR for “Deviate from the AB” and issuance of revised sections to the ISMP prior to April 24, 2000.

(4) Specific Corrective Actions – Contractor Verification of Corrective Action Effectiveness

The following specific activities will be taken to verify the effectiveness of the new AB maintenance process.

Activity	Planned Completion date
Complete a QA surveillance checklist	Jun 13
Approve the checklist	Jun 20
Conduct the AB maintenance surveillance	Jun 21-23
Complete the surveillance report	Jun 28
Approve the surveillance report	Jun 29
Surveillance report available to the RU	Jul 29